IN THE UNITED STATES DISTRICT COURT FOR THE DISTRICT OF DELAWARE

GIRAFA.COM, INC.,

Plaintiff,

v.

AMAZON WEB SERVICES, LLC, AMAZON.COM, INC., ALEXA INTERNET, INC., IAC SEARCH & MEDIA, INC., SNAP TECHNOLOGIES INC., YAHOO! INC., SMARTDEVIL INC., EXALEAD INC., AND EXALEAD SA.,

C.A. No. 07-787-SLR

Defendants.

REBUTTAL DECLARATION OF DR. BRAD A. MYERS

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I. Introduction

- 1. In this litigation, Girafa.com ("Girafa") has asserted that Amazon Web Services LLC, Amazon.com, Inc., Alexa Internet, Inc. (collectively, "The Amazon Defendants"), IAC Search & Media, Inc., Snap Technologies, Inc. ("Snap"), Yahoo! Inc., Smartdevil Inc., Exalead, Inc., and Exalead S.A, have infringed (directly and/or under the doctrine of equivalents) various claims of US patent 6,864,904 ("904 patent") assigned to Girafa.
- 2. I previously submitted a Declaration in this action, dated March 12, 2008, titled "DECLARATION OF DR. BRAD A. MYERS". That report and the exhibits to that report are incorporated herein by reference.
- 3. With respect to Exhibit B of my first Declaration, since the time of that Declaration, I have testified at a deposition in the current matter on April 18, 2008, and I have testified at trial on May 9, 2008 in the matter of *Microsoft Corporation v. Lucent Technologies Inc.*, *Alcatel-Lucent*, and the Multimedia Patent Trust.
- 4. With respect to Section IV of my first Declaration, since the time of that report, I have reviewed the following additional material:
 - Snap Technologies, Inc.'s Memorandum of Law in Opposition to Girafa.Com's Motion for Preliminary Injunction, dated May 16, 2008 ("Snap's Memorandum").
 - Answering Brief of Defendants Amazon Web Services LLC, Amazon.Com, Inc., and Alexa Internet Inc. in Opposition to Girafa.Com, Inc.'s Motion for Preliminary Injunction, dated May 16, 2008 ("Amazon's Brief").
 - Declaration of Thomas P. McGovern Jr. in Opposition to Girafa.Com's Motion for Preliminary IInjunction, dated May 15, 2008 ("McGovern Declaration").
 - Declaration of Michael Agostino in Opposition to Girafa. Com's Motion for Preliminary Injunction, dated May 15, 2008 ("Agostino Declaration"), and its attached exhibits.

- Declaration of Mark D. Nielsen in Opposition to Girafa. Com's Motion for Preliminary Injunction, dated May 16, 2008 ("Nielsen Declaration"), and its attached exhibits.
- Declaration of Gabriel Robins, Ph.D., dated May 14, 2008 ("Robins Declaration"), and its attached exhibits.
- Declaration of R. David Donoghue in Support of the Defendants Amazon Web Service,
 LLC, Amazon.Com, Inc., and Alexa Internet Inc.'s Opposition to GirafA.Com, Inc.'s
 Motion for Preliminary Injunction, dated May 16, 2008 ("Donoghue Declaration"),
 and its attached exhibits.
- Expert Report of Joseph Hardin on Invalidity of U.S. Patent No. 6,864,904, dated May 16, 2008 ("Hardin Declaration"), and its attached exhibits.
- Declaration of Greger Orelind in Support of Amazon Web Services, LLC; Amazon.Com, Inc.; and Alexa Internet Inc.'s Opposition to Girafa.Com, Inc.'s Motion for Preliminary Njunction (sic), dated May 16, 2008 ("Orelind Declaration"), and its attached exhibits.
- Deposition Transcript of Michael Agostino, dated June 5, 2008
- Agostino Deposition Exhibit 2
- Deposition Transcript of Thomas McGovern, dated June 5, 2008
- Deposition Transcript of Greger Orelind, dated June 6, 2008
- Deposition Transcript of Joseph Hardin, dated June 10, 2008
- Deposition Transcript of Gabriel Robins, Ph.D. dated May 30, 2008
- ALX000585-ALX000646
- Robins Deposition Exhibit 4
- Robins Deposition Exhibit 5
 - 5. I have been asked to respond to certain issues raised by the defendants.

II. Summary of Opinions

- 6. Snap proposes alternative constructions for some claim terms, which I believe are incorrect. However, even if the court were to accept Snap's constructions, the Snap products would *still* infringe the asserted claims.
- 7. None of the references provided by the defendants anticipate the asserted claims, and none of the references or combinations makes the asserted claims obvious.

III. Claim Construction

8. Snap proposes alternative constructions for some claim terms, which I believe are incorrect. I have been asked to address the following terms.

A. "Annotated Web Page"

9. Dr. Robins construes "annotated web page" to mean "a web page modified to include thumbnail visual images". I do not feel that this term needs construction, but if it did, incorporating the "thumbnail visual images" into the construction of "annotated" is incorrect because claim 13 first provides the "annotated web page", and only with claim 14 (which depends on 13) are the thumbnails required to be "within" the web page. It is clear from claim 13 that the proper construction of "annotated web page" would be "a web page with extra material added to it".

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¹ Robins Declaration, ¶25

В. "Partially Concurrently"

10. Dr. Robins construes "at least partially concurrently" to mean:

> "to some extent occurring at the same time.... 'Overlapping in time' would also be an appropriate construction for 'partially concurrently'."²

I do not feel that this term needs construction and should have its plain and ordinary meaning. If this term requires construction, however, the proper construction is "partially overlapping in time".

"Within the Visual Image" C.

- Dr. Robins construes "within the visual image" to mean "an element of the 11. rendered web page." ³ I do not feel that this term needs construction and should have its plain and ordinary meaning. However, should a construction be required, Dr. Robins' construction is incorrect, because it is clear that this phrase is intended to differentiate the claims in which it appears (such as claim 4) from the alternative claims (such as claim 2) where the thumbnails are "displayed alongside" the web page. An "element of a rendered web page" might not be rendered at all (some "elements" are invisible), or it might cause a pop-up window that could be alongside the web page.
- Instead, a proper construction of "within the visual image" (if one is needed) 12. would be "within the visual boundaries of the rendered web page".

Infringement Analysis IV.

13. I have been asked to address certain non-infringement contentions put forward by Snap.

² Robins declaration, ¶26

³ Robins declaration, ¶27

A. "Within the Visual Image"

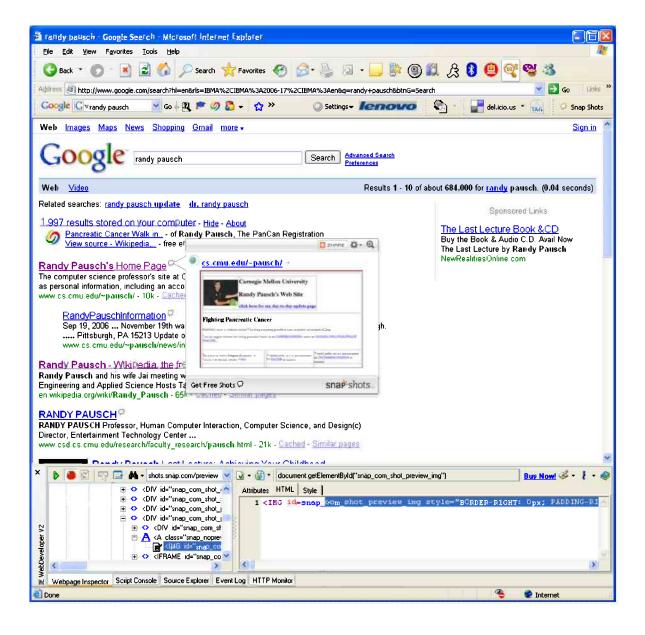
- 14. Dr. Robins tries to differentiate Snap Classic from Claims 4, 21, 38, and 49 and their dependent claims, and the Snap Browser Add-On and Snap Shots for Publishers/Bloggers from Claims 38 and 49 and their dependent claims by saying the thumbnail images are not "within the visual image" of the web page.
- 15. As explained above, I disagree with Dr. Robins' construction. Under the plain and ordinary meaning of the term, and also under my construction "within the visual boundaries of the rendered web page", Dr. Robins admits that the Snap products infringe these claims:
 - Q Okay. If you changed the construction to what I proposed, within the visual image of said web page, if that meant within the visual boundaries of the web page just visually, would the Snap preview shown in Exhibit M-1 be within the visual image of the web page?

THE WITNESS: Under that hypothetical, I -- I can say yes.⁴

16. Furthermore, even under Dr. Robins' construction ("an element of a rendered web page") the accused products *still* infringe the asserted claims. Snap's technology for these products uses Javascript to cause the Snap Shot to be displayed. The Javascript operates by adding elements to the rendered web page, so that after the thumbnail is displayed, the thumbnail *is* "an element of the rendered web page". This can be verified by using a web page inspection tool such as "IE WebDeveloper V2.4.1.112" which allows the user to (according to the vendor's web site http://www.ieinspector.com/dominspector/): "View, traverse, and even dynamically update that HTML DOM and Current Style directly in the browser window. Analyze the web pages you are interested in and learn their tricks." I used the tool to create the following screen shot on June 14, 2008, showing the elements of the rendered web page after a thumbnail has been displayed. You can see (in the IE WebDeveloper window at the bottom) that there are many elements from Snap in this page, including the thumbnail image itself (which is selected in the WebDeveloper window). Inspecting Snap Classic Web pages show similar results.

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⁴ Robins deposition, 80:22 to 81:15



B. "Annotated Web page"

- 17. Dr. Robins tries to differentiate Snap Classic, the Snap Brower Add-On and Snap Shots for Publishers/Bloggers from Claims 35 and 46 and their dependent claims by claiming that the Snap products do not create an "annotated web page".
- 18. As discussed above, I disagree with Dr. Robins' construction. Under my construction, "a web page with extra material added to it," the accused products clearly infringe these claims, since the web page has the Snap icons () added to it. Furthermore, after the thumbnail images are displayed, the web page has the thumbnail image and the rest of the Snap preview added to it.
- 19. However, even under Dr. Robins' construction ("a web page modified to include thumbnail visual images"), the products *still* infringe the claims, since, as shown in the previous section: after the thumbnail has been displayed, the web page has been modified to include the thumbnail visual images.

V. Validity

- 20. Mr. Hardin, the expert for the Amazon defendants, provides a number of claim charts which compare the asserted claims of the '904 patent to various references. Snap's Memorandum provides a few additional references. However, none of these individually anticipates or makes obvious the asserted claims, and none of the combinations makes the asserted claims obvious.
- 21. The key elements that are missing from the new references are the same ones that the patent office found missing from the prior art references that were before the patent office, as mentioned in my previous declaration: using an image server to provide the thumbnails that is

separate from the web server that provides the web page, and using an image of the homepage instead of an image of the target web page of the hyperlink (¶68 of my previous Declaration).

- 22. Amazon's brief, Snap's Memorandum, and Mr. Hardin's Declaration all confuse the second point. Although they say they are accepting my claim construction for home page, and Amazon's brief explicitly mentions that the examiner said one inventive element was "using thumbnail visual images of a homepage of a linked-to web site, instead of a thumbnail of the linked-to page", they all repeatedly assert that it is sufficient to show the image of a home page when the home page is the linked-to page⁵.
- 23. Clearly, any system that displays a thumbnail for a linked-to web page will show the thumbnail of a home page when the linked-to web page is a home page. However, an important invention of the patent, as clearly explained by the inventors in the specification and their letters to the examiner, is to use the image of the home page in place of the image of the linked-to page, when the linked-to page is not the home page. For example, claim 1 describes "providing a thumbnail visual image of the home page of at least one web site which is represented by said at least one hyperlink". The inventors clearly explained this:

While the applicant agrees that Miller teaches displaying thumbnails of documents, the applicant respectfully submits that Miller displays thumbnails of linked pages and does not show or suggest displaying thumbnails of the home pages of the linked pages, as recited in amended claims 1 and 21.

None of the new references or the previously discussed references have anything like this functionality, and no combination makes this idea obvious.

⁵ For example, Amazon's Brief at pp. 18-21 and Snap's Memorandum at p. 21

^{6 &#}x27;904 patent, 11:40-42

^{7 &#}x27;904 patent file history at p. 88 — see Exhibit C of my Declaration, emphasis in the original

A. "Schmid"

- 24. Hardin's claim chart U discusses a paper by Stefan Schmid, which is provided by Hardin's Exhibit V, and also by Nielsen's Exhibit B.
- 25. The Schmid reference does not show or suggest displaying thumbnails of the **home pages** of the linked-to pages, and thus cannot anticipate claims 1, 4, 5, 6, 7, 12, 13, 14, 15, 18, 21, 22, 23, 24, 29, 30, 31, or 32, which require this element. Thumbnails are only ever provided for the linked-to page itself, not for the homepage of the linked-to page.
- 26. The Schmid reference does not show a web server separated from the image server, where the web server provides the web page which includes the thumbnails which come from the image server, and thus cannot anticipate at least the asserted claims 35, 38, 39, 40, 41, 42, 44, 45, 46, 49, 50, 51, 52, 53, 55, or 56. Mr. Hardin says: "Schmid further teaches that its web server is separate from Schmid's thumbnail or image server. Id. at Fig. 2."8 Figure 2 contains the Thumbnail Server Host. However, the two Web Server Hosts and the HTTP Proxy shown at the top of Figure 2 are the servers that supply the web pages which are reduced to form the thumbnail images, and are not the Web Server that supplies the annotated web page to the user which includes the thumbnails. The other hosts shown in Figure 2 are the users' client hosts, running browsers, and are not Web Servers at all. In fact, the article does not explain how the web pages shown in Figure 3 and shown in the client hosts in Figure 2 are created. They could be generated on the client or by the Thumbnail Server Host. In fact, the diagram of Figure 2 suggests that the clients only interact with the one server (the Thumbnail Server). Furthermore, the future work says that: "Our goal is to have a reliable Thumbnail service on each Web site...", which implies that the architecture would be to *include* this service as part of the site's regular web server.

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⁸ Hardin Exhibit U, p. 8

- 27. Furthermore, the Schmid reference does not teach having the thumbnail **hover** over the hyperlink, so it cannot anticipate claims 5, 15, 22, 32, 39, 45, 50, 56.
- 28. Furthermore, the Schmid reference does not teach the splitting, trimming, and constructing of **URLs**, so it cannot anticipate claims 44 or 55.

B. "Kraft", US 7,177,948

- 29. Hardin's claim chart W discusses US patent 7,177,948 ("Kraft"), filed on Nov. 18, 1999, which is provided by Hardin's Exhibit X, and also by Nielsen's Exhibit C.
- pages of the linked-to pages, and thus cannot anticipate claims 1, 4, 5, 6, 7, 12, 13, 14, 15, 18, 21, 22, 23, 24, 29, 30, 31, or 32, which require this element. Thumbnails are only ever provided for the linked-to page itself (such as the example of www.infoseek.com used in the claim chart⁹), not for the homepage of the linked-to page. Mr. Hardin acknowledges this in his deposition. ¹⁰
- 31. Furthermore, the Kraft reference does not teach having the image server **separate** from the web server, and thus cannot anticipate at least the asserted claims 35, 38, 39, 40, 41, 42, 44, 45, 46, 49, 50, 51, 52, 53, 55, or 56. The patent describes *one* server which performs both the web searching and the image handling. This one server is the "Server Side" box in Figures 4 and 8. The patent describes "**the** server" in many places¹¹, saying that "the server-side components interact closely together to achieve the desired result." Mr. Hardin says "Kraft teaches an image server that is clearly separate from a web server. See, e.g., id. at Fig. 4"¹³, but Figure 4 shows the one server that provides both functions. In his deposition, when trying to find the separate Web server, Mr. Hardin said: "... for instance, in Figure 8. The representation manager then is a web-

Hardin deposition at 67:21

⁹ Hardin Exhibit W, p. 1

¹¹ E.g., 7,177,948 patent at 1:28, 1:50, 2:27, 4:52, and many others.

¹² *Id*. at 6:6-7

¹³ Hardin Exhibit W at p. 8

- a web server." However, since Web servers have to accept requests as well as respond to them, and the requests (60) go into the session manager part (24) and the responses come out of the representation manager part (62), it is clear that the web server must be the larger outer box in Figure 8. Snap's Memorandum seems to acknowledge that there is no separate image server¹⁵, and proposes combinations with other references (see section J below).

- 32. I also note that the configuration for the server for the Kraft reference is the same as for the Brown reference that was before the patent office: a single server that provides results along with thumbnail images. Therefore, the Kraft reference does not add anything new and is strictly cumulative. See also my discussion of the Brown reference in section E below.
- 33. Furthermore, the Kraft reference does not teach the splitting, trimming, and constructing of **URLs**, so it cannot anticipate claims 44 or 55.

C. "Finseth", US 6,271,840

- 34. Hardin's claim chart Y discusses US patent 6,271,840 ("Finseth"), filed on Sep. 24, 1998, which is provided by Hardin's Exhibit Z.
- 35. The Finseth reference does not show or suggest displaying thumbnails of the home pages of the linked-to pages, and thus cannot anticipate claims 1, 4, 5, 6, 7, 12, 13, 14, 15, 18, 21, 22, 23, 24, 29, 30, 31, or 32, which require this element.
- 36. The Finseth reference does not teach **storing** the thumbnail images at all, which is required by all of the asserted claims (i.e., "employing an image server that stores and provides said thumbnail visual image" in all independent claims: 1, 18, 35, and 46), and thus the Finseth reference cannot anticipate any of the asserted claims. Mr. Hardin says "...an image server that stores and provides said thumbnail visual image. See, e.g., id. at Fig. 5 and 6", but these figures

Hardin deposition at 71:2 to 71:4
 Snap's Memorandum at p. 25
 Hardin Exhibit Y at p. 1

are representations of the user's screen, and show nothing about the storage of thumbnails. Mr. Hardin acknowledges this in his deposition.¹⁷

- 37. Furthermore, the Finseth reference does not teach having the image server separate from the web server, and thus cannot anticipate at least the asserted claims 35, 38, 39, 40, 41, 42, 44, 45, 46, 49, 50, 51, 52, 53, 55, or 56. Mr. Hardin says "Finseth teaches an image server that is clearly separate from a web server. Id. at Fig. 4"18, but Figure 4 shows one server for the search engine, and the rendering of the thumbnails is shown as part of the browser (130) and not as part of any server, so there is no separate image server in Figure 4. Other figures, e.g., Figure 3 of the patent, show the renderer as part of the search engine, and is labeled "process on server", clearly indicating a single server that provides both the thumbnails and the annotated web pages.
- 38. Therefore, the Finseth reference does not provide any elements beyond the Brown reference that was before the patent office: a single server that provides results along with thumbnail images, so the Finseth reference is cumulative. See also my discussion of the Brown reference in section E below.
- 39. Furthermore, the Finseth reference does not teach having the thumbnail hover over the hyperlink, so it cannot anticipate claims 5, 15, 22, 32, 39, 45, 50, 56.
- 40. Furthermore, the Finseth reference does not teach the splitting, trimming, and constructing of URLs, so it cannot anticipate claims 44 or 55.

"Miller", US 6,613,100 D.

41. Hardin's claim chart AA discusses US patent 6,613,100 ("Miller"), filed on Nov. 26, 1997, which is provided by Hardin's Exhibit AB. As a preliminary matter, I note that this

 $^{^{17}}_{\ \ 18}$ Hardin deposition at 49:13-14, and 56:25 Hardin Exhibit Y at p. 8

patent was in front of the examiner, and extensively discussed by the examiner and the inventors. I also discussed this patent in my initial Declaration (¶¶63-65, 68-69).

- 42. The Miller reference does not does not show or suggest displaying thumbnails of the **home pages** of the linked-to pages, and thus cannot anticipate claims 1, 4, 5, 6, 7, 12, 13, 14, 15, 18, 21, 22, 23, 24, 29, 30, 31, or 32, which require this element.
- 43. The Miller reference discusses having thumbnails of a variety of kinds documents around the main document, including:

documents whose address is contained as a link on the current "CHILDREN document documents who have links to the current document, 19 **PARENTS**

- 44. "Children" refers to the kind of relationships discussed in the '904 patent: hyperlinks in the current web page. Note, however that "parents" are **not** the same as home pages, unlike what Hardin says in his declaration.²⁰ Instead, "parents" refers to all the pages which reference the current page, as Hardin acknowledges in his deposition. ²¹ For many pages of web sites, the "parent" would not include the web site's homepage at all, since the homepage only will have direct links to a few of the pages of a web site. For example, one of my web pages (http://www.cs.cmu.edu/~bam/langbook.html) has a link to the web page for my book on Amazon.com (so my page is the "parent" of the Amazon page, which is the "child"), but neither page is the home page of the other, and, in fact, neither page is even a home page. Furthermore, the thumbnails in Miller shown for the parents are clearly not being used in place of thumbnails for the linked-to pages (here called the "children" pages), as required by the '904 patent.
- 45. The Miller reference does not teach using an **image server** at all, or **storing** the thumbnail images on the image server, which is required by all of the asserted claims (i.e., "employing an image server that **stores** and provides said thumbnail visual image" in all asserted

 ¹⁹ 6,613,100 patent at 8:51-65
 Hardin Exhibit AA at p. 1.
 ²¹ Hardin deposition at 75:8-77:10.

independent claims: 1, 18, 35, and 46), and thus the Miller reference cannot anticipate any of the asserted claims. Mr. Hardin says: "Miller teaches providing ... thumbnails ... by employing a storage device 320 or image server that stores and provides said thumbnail visual image. See, e.g., id. at Fig. 3 and Col. 6, ln. 4-16."²² However, storage device 320 is on the user's computer as shown in Figure 3, and not on any server. Nothing in the cited text discusses anything about a server at all.

- 46. Furthermore, the Miller reference does not teach having the image server separate from the web server, and thus cannot anticipate at least the asserted claims 35, 38, 39, 40, 41, 42, 44, 45, 46, 49, 50, 51, 52, 53, 55, or 56. Mr. Hardin says "Miller teaches an image server that is clearly separate from a web server. See, e.g., id. at Fig. 3 and Col. 6, ln. 4-16."²³ However, nothing in the cited parts of the patent describe servers of any kind, and certainly not separate servers.
- 47. Furthermore, the Miller reference does not teach having the thumbnail visual images within the visual image of the web page, so it cannot anticipate claims 4, 5, 14, 21, 22, 31, 38, 39, 42, 49, 50, or 53.
- 48. Furthermore, the Miller reference does not teach having the thumbnail **hover** over the hyperlink, so it cannot anticipate claims 5, 15, 22, 32, 39, 45, 50, or 56.
- 49. Furthermore, the Miller reference does not teach embedding commands to the web browser to download images of web pages, so it cannot anticipate claims 13, 14, 30, 31, 35, 38, 39, 40, 41, 42, 44, 45, 46, 49, 50, 51, 52, 53, 55, or 56.
- 50. Furthermore, the Miller reference does not teach the splitting, trimming, and constructing of URLs, so it cannot anticipate claims 44 or 55.

Hardin Exhibit AA at p. 1.Hardin Exhibit AA at p. 8

Ε. "Brown", US 6,665,838

- 51. Hardin's claim chart AC discusses US patent 6,665,838 ("Brown"), filed on Jul. 30, 1999, which is provided by Hardin's Exhibit AD. As a preliminary matter, I note that this patent was in front of the examiner, and extensively discussed by the examiner and the inventors. I also discussed this patent in my initial Declaration (¶63, 66-69).
- 52. The Brown reference does not does not show or suggest displaying thumbnails of the **home pages** of the linked-to pages, and thus cannot anticipate claims 1, 4, 5, 6, 7, 12, 13, 14, 15, 18, 21, 22, 23, 24, 29, 30, 31, or 32, which require this element.
- 53. The Brown reference does not teach having the image server **separate** from the web server, and thus cannot anticipate at least the asserted claims 35, 38, 39, 40, 41, 42, 44, 45, 46, 49, 50, 51, 52, 53, 55, or 56. The patent describes one server which performs both the web searching and the image handling:
 - ... a server receives a request from a client for a page from the database wherein the page has a plurality of links to linked pages in the database. The server retrieves the page and generates a set of thumbnails of the linked pages in the database. The server then sends the page and the set of thumbnails to the client.²⁴
- To try to find a separate server, Mr. Hardin writes: "Brown teaches a storage 54. device in Fig. 2 that is separate from the server 204. See also, id. at Col. 3, ln. 61-64 (identifying the network connections as the Internet)."25 However, the storage device 206 in Figure 2 is not described as being used for images (in fact, the patent does not say anything about what it is for). Instead, the images are clearly stored in the cache that is part of the one server (204) itself. ²⁶ Furthermore, the cited description of the network connections as the Internet does not mention any servers.

²⁶ 6,665,838 patent at 7:14-16

 ²⁴ 6,665,838 patent at 2:25-31, emphasis added
 ²⁵ Hardin Exhibit AC at p. 10.

- 55. In his deposition, Mr. Hardin acknowledges there is *one* server that does multiple functions: "... the functionality that's described here would be logically separate in the sense that it would be other components of the serve -- of programs that are running on the server."²⁷ As the inventors and examiner agreed (see ¶43 of my original Declaration), a single server that does all of the functions is not what these claims require.
- Furthermore, the Brown reference does not teach having the thumbnail hover 56. over the hyperlink, so it cannot anticipate claims 5, 15, 22, 32, 39, 45, 50, or 56.
- 57. Furthermore, the Brown reference does not teach the splitting, trimming, and constructing of **URLs**, so it cannot anticipate claims 44 or 55.

F. "Robertson", US 6,486,895

- 58. Hardin's claim chart AE discusses US patent 6,486,895 ("Robertson"), filed on Sep. 8, 1995, which is provided by Hardin's Exhibit AF. As a preliminary matter, I note that this patent was in front of the examiner.²⁸
- 59. The Robertson reference does not does not show or suggest displaying thumbnails of the **home pages** of the linked-to pages, and thus cannot anticipate claims 1, 4, 5, 6, 7, 12, 13, 14, 15, 18, 21, 22, 23, 24, 29, 30, 31, or 32, which require this element. Mr. Hardin acknowledges this in his deposition.²⁹
- 60. The Robertson reference does not teach using an **image server** at all, or **storing** the thumbnail images on the image server, which is required by all of the asserted claims (i.e., "employing an image server that stores and provides said thumbnail visual image" in all asserted independent claims: 1, 18, 35, and 46), and thus the Robertson reference cannot anticipate any of the asserted claims.

Hardin deposition at 60:22-25, emphasis added
 See '904 patent at (56)
 Hardin Deposition at 65:17-22

- 61. Furthermore, the Robertson reference does not teach having the image server **separate** from the web server, and thus cannot anticipate at least the asserted claims 35, 38, 39, 40, 41, 42, 44, 45, 46, 49, 50, 51, 52, 53, 55, or 56. Hr. Hardin acknowledges this in his deposition.³⁰
- 62. Furthermore, the Robertson reference does not teach having the thumbnail visual images **within** the visual image of the web page, so it cannot anticipate claims 4, 5, 14, 21, 22, 31, 38, 39, 42, 49, 50, or 53.
- 63. Furthermore, the Robertson reference does not teach having the thumbnail **hover** over the hyperlink, so it cannot anticipate claims 5, 15, 22, 32, 39, 45, 50, or 56.
- 64. Furthermore, the Robertson reference does not teach **embedding** commands to the web browser to download images of web pages, so it cannot anticipate claims 13, 14, 30, 31, 35, 38, 39, 40, 41, 42, 44, 45, 46, 49, 50, 51, 52, 53, 55, or 56.

G. "Kopetzky"

- 65. In addition to the references in the Claim Charts in Hardin's declaration, Snap's Memorandum discusses some additional references. Pages 23-24 discuss Kopetzky, which is provided by Nielsen's Exhibit F.
- 66. The Kopetzky reference does not show or suggest displaying thumbnails of the **home pages** of the linked-to pages, and thus cannot anticipate claims 1, 4, 5, 6, 7, 12, 13, 14, 15, 18, 21, 22, 23, 24, 29, 30, 31, or 32, which require this element. Thumbnails are only ever provided for the linked-to page itself, not for the homepage of the linked-to page.
- 67. Furthermore, the Kopetzky reference does not teach having the image server separate from the web server, and thus cannot anticipate at least the asserted claims 35, 38, 39,

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³⁰ *Id* at 65:23-66:2

40, 41, 42, 44, 45, 46, 49, 50, 51, 52, 53, 55, or 56. The patent provides one proxy server which provides both the downloaded web page and the thumbnail images on that web page.³¹ The proxy server in Kopetzky is clearly the server which supplies the web page, and is the same server that provides the images.

- 68. Furthermore, the Kopetzky reference does not teach the splitting, trimming, and constructing of **URLs**, so it cannot anticipate claims 44 or 55.
- Furthermore, the Kopetzky reference does not teach showing multiple thumbnails 69. at the same time (only one at a time can be viewed³²), so it cannot anticipate claims 6, 23, 40, or 51. Figure 9 that Snap references³³ is clearly labeled "Client side architecture," and shows how the software works internally, not what can be viewed by the user.

H. **Obviousness Arguments for Home Pages**

70. In trying to find the required elements for "the home page of at least one web site which is represented by said at least one hyperlink," (independent claims 1 and 18), Mr. Hardin describes a variety of other references. However, none of these teach this element either.

71. For some references, Mr. Hardin says:

In any case, the use of thumbnail visual images of homepages is a predictable and very slight variation of Schmid. A person of ordinary skill in the art at the time of the invention, faced with the need and desire to implement the system in a costeffective and efficient manner would have seen the benefit of modifying Schmid [Finseth, Brown or Robertson] in a minor fashion by using thumbnail visual images of homepages of the target hyperlinks.³⁴

72. This is not true. A person of ordinary skill in the art at the time of the invention, faced with the need and desire to implement the system in a cost-effective and efficient manner,

³¹ See Kopetzky article at pp. 1528-9.

³² See Kopetzky article at p. 1528.

See Ropetzky article at p. 1526.

Snap's Memorandum at p. 23

Hardin Exhibit U, p. 1, when discussing Schmid. Similar language is used in Exhibit Y, p. 1 about Finseth,

The standard Exhibit AF p. 1 and 9 about Robertson. Exhibit AC, p. 1 and 4 about Brown, and Exhibit AE, p. 1 and 9 about Robertson.

would have many options and different approaches available. They would <u>not</u> be motivated to replace the target page thumbnail with the home page thumbnail, since the point of these articles is to show an image of the actual target page. It is also not a "minor" modification, since it requires significant extra steps. Only by using the '904 patent as a guide, would the person would recognize the "benefit of modifying Schmid [Finseth, Brown or Robertson] in a minor fashion by using thumbnail visual images of homepages of the target hyperlinks"³⁵, but this requires hindsight.

73. Mr. Hardin further says:

The use of thumbnail visual images of homepages of hyperlinks was well known in the prior art at least as early as 1996, as it was used by web sites like CNN Site Seer, developer pages, Jump City, and the combination of this familiar element with Schmid [Finseth, Brown or Robertson] to yield this predictable result would have been obvious and is a simple design choice. Hardin Decl. Exs. C, G, and AL.³⁶

- 74. These references show thumbnails of home pages when the linked-to page is to that *same* home page, which is not relevant to the required element, as discussed above in ¶22. None of the references teach the use of the image of the home page *in place of* the image of the linked-to page, when the linked-to page is *not* the home page. Again, substituting an image of the home page for the image of the target page is not obvious and would not be "a simple design choice."
- 75. As I mentioned in my initial Declaration, there was a long-felt need for a practical way to provide thumbnails for web pages, but no-one prior to the '904 patent used or even suggested the idea of replacing the target page with the home page as part of the solution to this need. The many references cited by Mr. Hardin and Snap further reinforce my view that this

³⁵ Hardin Exhibit U, p. 1, when discussing Schmid. Similar language is used in Exhibit Y, p. 1 about Finseth, Exhibit AC, p. 1 and 4 about Brown, and Exhibit AF, p. 1 and 9 about Robertson.

Exhibit AC, p. 1 and 4 about Brown, and Exhibit AE, p. 1 and 9 about Robertson.

36 Hardin Exhibit U, p. 1, when discussing Schmid. Similar language is used in Exhibit Y, p. 1 about Finseth, Exhibit AC, p. 1 and 4 about Brown, and Exhibit AE, p. 1 and 9 about Robertson.

long-felt need existed, and that the substitution of target page thumbnails with home page thumbnails was *not* an obvious solution.

I. Obviousness Arguments for URL Manipulation

76. In trying to find the required elements of "splitting a URL of each hyperlink into URL components including at least a path component and a host component; trimming a path component based on the consideration of finding the most representative image of a given web page; and constructing a new URL including a trimmed path component," (claims 1 and 18), Mr. Hardin described a variety of other references. However, none of these teach this element either.

77. Mr. Hardin says:

In fact, processing a list of URLs by identifying path components of each URL was taught by U.S. Patent No. 5,761,436 to Nielsen which was issued on June 2, 1998 ("Nielsen") and U.S. Patent No. 6,594,697 to Praitis ("Praitis") which was filed on May 20, 1999. See, e.g., Hardin Decl. Ex. AH. at Fig. 9 and Col. 11 ln. 56-65; Hardin Decl. Ex. Q. at Col. 13, ln. 32-48.

Nielsen further teaches truncating or trimming a path component, identified as a string of characters starting with a "/". See, e.g., Hardin Decl. Ex. AH at Fig. 9 (step 919) and Col. 12 ln. 17-22. Similarly, Praitis teaches disregarding or trimming all information after a predetermined number of delimiters or host components. See, e.g., Hardin Decl. Ex. Q at Col. 13, ln. 34-36.

Nielsen further teaches storing the truncated or trimmed URL, with source history data. See, e.g., Hardin Decl. Ex. AH at Fig. 9 and Col. 12 ln. 20-22. Praitis also teaches "construct[ing] a URL." See, e.g., Hardin Decl. Ex. Q, Col. 13, ln. 36-42.³⁷

78. U.S. Patent No. 5,761,436 to Nielsen shows manipulating a set of hyperlinks to group them by shared parts of the URL. This is performed by truncating the URL parts. U.S. Patent No. 6,594,697 to Praitis shows finding the hostname and presenting it to the user when a URL fails, as part of a more useful error message.

³⁷ Hardin Exhibit U, p. 10-11, when discussing Schmid. Similar language is used in Exhibit W, pp. 10-11 about Kraft, Exhibit Y, pp. 10-11 about Finseth, Exhibit AA, pp. 10-11 about Miller, Exhibit AC, p. 12 about Brown, and Exhibit AE, pp. 11-12 about Robertson.

79. However, neither of these is manipulating the URL to *substitute* the home page in place of the linked-to page. Instead, they both use the home page to augment the information that is also displayed. Furthermore, neither of these has anything to do with thumbnails or images of web pages.

J. **Obviousness Arguments for Separate Image Server**

80. Snap's Memorandum tries to find the missing separate image server for Kraft (section B above) by combining with two other references: U.S. Patent 6,108,703 to Leighton (Nielsen Exhibit G and Hardin Exhibit D), and U.S. Patent 5,991,809 to Kriegsman (Nielsen Exhibit H).³⁸ However, Kraft explicitly says that "the server-side components interact closely together to achieve the desired result",39 thus teaching away from dividing the components among multiple servers. Further, both Leighton and Kriegsman require that all the content of the web page, including all images on the web pages, be stored *both* on the web server (the "content provider" of Leighton⁴⁰ and the "primary web server" of Kriegsman⁴¹) and on the other server (the "ghost server" of Leighton⁴² and the "secondary web server" of Kriegsman⁴³), or else their systems will not work. In fact, Leighton says the other server only has a "minimal amount of data"44, and Kriegsman discusses how an object might not fit on the other server because it might be "larger than the total storage capacity of this server". 45 Thus, combining Kraft with Leighton and/or Kriegsman would result in all the content being on the web server, the rather than using the image server as the separate repository for images, as required by the claims. Furthermore, neither Leighton nor Kriegsman has any mention of thumbnails, reduced-size images, or any kind of image of web pages.

³⁸ Snap's Memorandum, pp. 25-26 ³⁹ 7,177,948 patent at 6:6-7 ⁴⁰ 6,108,703 patent at 3:9 ⁴¹ 5,991,809 patent at Fig. 1

^{42 6,108,703} patent at 3:7

^{5,991,809} patent at Fig. 1

⁴⁴ 6,108,703 patent at 3:52

⁴⁵ 5,991,809 patent at 10:52-53

81. As I mentioned in my initial Declaration, there was a long-felt need for a practical way to provide thumbnails for web pages, but no-one prior to the '904 patent used or even suggested the idea of using a separate image server to store and provide thumbnails of web pages as part of the solution to this need. The many references cited by Mr. Hardin and Snap further reinforce my view that this long-felt need existed, and that using a separate image server to store and provide thumbnails of web pages was *not* an obvious solution.

K. **Other Background References**

- 82. In addition to the specific combinations in the claim charts, Mr. Hardin also provides general statements that the invention would be obvious "in light of numerous references, as ... described in ... Section VII generally describing the state of the prior art as of December 6, 1999." However, none of the references in that section show the required elements either. The following paragraphs discuss the additional references cited in his Section VII, which have not already been discussed above.
- 83. Mr. Hardin says that U.S. Patent No. 6,496,849 to Hanson shows a separate image server⁴⁶. However, the "image server (service)" (28) in Figure 2 that he cites, actually provides dynamic content that is automatically updated: "a dynamic image displaying the same up-to-date data is served by the image server 28."47 Note that in Figure 2, the image server does not have any storage, and the patent says that "the database 10 may also include images and web pages" 48 but this database is part of the web server, not the image server. Thus, this reference does not show a separate image server that stores and provides images, as required by the claims. Furthermore, Hanson does not have any mention of thumbnails, reduced-size images, or any kind of image of web pages.

 $^{^{46}}$ Hardin declaration, ¶27, and Exhibit E 47 US Patent 6,496,849 at 10:21-23.

⁴⁸ US Patent 6,496,849 at 6:43-44.

84. Mr. Hardin says that "another example of the architecture of image servers during this period can be found in U.S. Patent No. 6,449,639 to Blumberg."⁴⁹ However, as with Hanson, the Blumberg "image server" always does image processing to "generate the requested image." ⁵⁰ Thus, this reference also does not show a separate image server that *stores* the provided images, as required by the claims. Furthermore, Blumberg does not have any mention of thumbnails, reduced-size images, or any kind of image of web pages.

- Next, Mr. Hardin discusses thumbnails of web pages⁵¹, but again, he only shows 85. thumbnails of the target pages. There are no examples of thumbnail images of a home page in place of the image of the linked-to page.
- Next, Mr. Hardin discusses some image servers. The Borealis/Phoenix system⁵² 86. can provide thumbnail size images, but these thumbnails are always generated dynamically on the fly⁵³. The thumbnail images are not stored, as required by all of the asserted claims. Furthermore, in all the examples shown in both papers, the Borealis server supplies both the web page and the images.⁵⁴ The Medical imaging system discussed in paragraphs 33-34, and included in Exhibit N just has a single server, which is used by a client application (as shown in Figure 1).⁵⁵ Thus, this system does not teach anything about separate servers. Neither of these papers discusses thumbnail images of web pages.
- 87. With respect to URL manipulation, Mr. Hardin discusses U.S. Patent 6,510,461 to Nielsen, the Eudora mail program, and U.S. Patent 6,269,370, all of which can recognize URLs in text by the structure of the URL.⁵⁶ U.S. Patents 5,870,559 and 6,237,006 are mentioned,⁵⁷

Hardin declaration, ¶28, and Exhibit F

US Patent 6,449,639 at 13:49-50.

Hardin declaration, ¶29

Hardin declaration, ¶30-31, and Exhibits I and J

See Hardin Exhibit I at page 4.

See Hardin Exhibit I at Figure 5, the second article in Exhibit I at Figure 5c, and Exhibit J at 5c, where the web pages are all provided by the Borealis server.

See Hardin Exhibit N at page 2

Hardin declaration, ¶36

Hardin declaration, ¶38

which can visualize the web pages in a site as a graph using "conventional webcrawling techniques."58 Finally, U.S. Patent 6,732,086 is mentioned,59 which is like U.S. Patent No. 5,761,436 to Nielsen (discussed above in paragraph 78) in that both patents show manipulating a set of hyperlinks to group them by shared parts of the URL. Just as with the other URL references discussed above in section I, none of these is manipulating the URL to substitute the home page in place of the linked-to page. Instead, they all are using the parsing to augment the information that is also displayed. Furthermore, none of these has anything to do with thumbnails or images of web pages.

I expect to testify at trial consistent with the opinions expressed in this report. 88.

Dated: July 5, 2008

 $^{^{58}}$ US Patent 5,870,559 at 2:9-10, and US Patent 6,237,006 at 2:11-12 59 Hardin declaration, $\P 38$